

# REPORT DOCUMENTATION PAGE

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1. REPORT DATE (DD-MM-YYYY) 31-08-2010			2. REPORT TYPE Final Performance Report		3. DATES COVERED (From - To) From 01-02-2010 To 31-08-2010
4. TITLE AND SUBTITLE  Distributed Atmospheric Neutral Density Explorer (DANDE)			5a. CONTRACT NUMBER  5b. GRANT NUMBER FA9550-09-1-0641  5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)  Henry J. Pernicka			5d. PROJECT NUMBER  5e. TASK NUMBER  5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)  Aerospace Engineering Mechanical and Aerospace Engineering Missouri University of Science and Technology (formerly the University of Missouri-Rolla) 331 Toomey Hall 400 West 13th Street Rolla, MO 65409-0050			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)  AFOSR / RSE 875 North Randolph Street, Suit 325 Room 3112 Arlington, Virginia 22203-1768			10. SPONSOR/MONITOR'S ACRONYM(S)  AFOSR/RSE  11. SPONSOR/MONITOR'S REPORT NUMBER(S) AFRL-OSR-VA-TR-2012-0737		
12. DISTRIBUTION / AVAILABILITY STATEMENT  1) DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT  The DANDE program has progressed from engineering and test units to near-flight and flight hardware. Significant testing has occurred within the last year including a mass properties test, RF testing, communication system end-to-end testing, mechanism thermal vacuum testing, software performance testing and science instrument tests. For the accelerometer instrument, signal and noise tests have occurred which have successfully demonstrated their filtering and amplification capabilities. The wind and temperature spectrometer has also undergone vacuum chamber testing with an ion source at NASA Goddard and within University of Colorado facilities. These tests have allowed for further refinement of the instrument with both its high voltage components and its firmware. Finally, operational planning has occurred allowing for development of the ground infrastructure to operate DANDE on orbit. The ground station and ground command and data handling systems have developed such that they can transfer data between the DANDE engineering unit and the ground systems.					
15. SUBJECT TERMS  Standard terms apply					
16. SECURITY CLASSIFICATION OF:  a. REPORT U			17. LIMITATION OF ABSTRACT  b. ABSTRACT U	18. NUMBER OF PAGES  c. THIS PAGE U	19a. NAME OF RESPONSIBLE PERSON Kent Miller, RSE (Program Manager)  19b. TELEPHONE NUMBER (include area code) 703.696.8573

To: technicalreports@afosr.af.mil

Subject: Progress Statement to Dr. Kent Miller

Contract/Grant Title: Distributed Atmospheric Neutral Density Explorer (DANDE)

Contract/Grant #: FA9550-09-1-0641

Reporting Period: February 1, 2010 to August 31, 2010

Annual accomplishments:

The DANDE mission to study density, wind and composition relationships to drag is undergoing final development testing and will be moving into proto-flight build this summer.

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The team has presented posters at the MURI, QB50 and Small Satellite Conference.

Archival publications (published) during reporting period: NONE

Changes in research objectives, if any: NONE

Change in AFOSR program manager, if any: NONE

Extensions granted or milestones slipped, if any: NONE

Include any new discoveries, inventions, or patent disclosures during this reporting period (if none, report none): NONE